## WATER COMPLIANCE OFFICE 50 ESSEX AVENUE GLOUCESTER, MA 01930



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## 2013 DRINKING WATER QUALITY NOTICE

The water supply for the City of Gloucester is provided from five surface water reservoirs and two water treatment plants (Babson & West Gloucester). Before water is pumped to the distribution system it is treated for particle and organics removal through coagulation & sedimentation with polyaluminum chloride; for oxidation of manganese and iron with potassium permanganate; for corrosion control and to adjust pH with sodium hydroxide; to increase alkalinity with sodium bicarbonate; for corrosion control to create a very thin coating on the walls of distribution pipes and house plumbing with orthophosphate; and for disinfection with sodium hypochlorite plus ammonium sulfate that forms chloramines. The treatment process uses rapid sand filtration to reduce turbidity. Sodium fluoride is also added for dental health at the plants. Major upgrades at these plants were completed in 2010 and in 2013 are under construction to ensure a safe and reliable drinking water supply in regulatory compliance. A third supplemental water treatment plant located at the Lanesville Klondike Quarry had regulatory upgrades performed in 2012 and the Klondike Water Treatment plant will be operated in 2013.

The City of Gloucester Department of Public Works, Water Compliance Office, through a contract treatment plant operator routinely performs laboratory analyses of the drinking water supply in accordance with Massachusetts Department of Environmental Protection requirements. Gloucester's water supply is currently in compliance with all federal and state primary drinking water standards.

Below is a representative list of parameters which are monitored at varying frequencies, for regulatory compliance, background information on water quality or process control; and typical operating data:

Monitored Water Quality Parameters alkalinity turbidity pH aluminum total organic carbon color chlorine residual inorganics iron & manganese radionuclides synthetic organic compounds asbestos fluoride perchlorate lead & copper volatile organic compounds sulfate nitrate & nitrite heterotrophic plate count Coliform bacteria ammonia Disinfection Byproducts – total trihalomethanes (TTHM's) and haloacetic acids (HAA's)

Typical operating data:	turbidity: <0.5 NTU	alkalinity 25 - 30
	pH: 7.5-8.0	sodium 27-49 mg/l
	fluoride 1 mg/l	total THM's - 0.4 mg/l
	total chlorine 2.5-1.0 mg/l	Haloacetic Acids - 0.2 mg/l

Specific analytical data is available for review at the Water Compliance Office. A copy of the 2011 Annual Water Quality Report that is a snapshot of drinking water quality that the Department of Public Works provided last year can be found at the following link: <a href="http://gloucester-ma.gov/DocumentView.aspx?DID=1250">http://gloucester-ma.gov/DocumentView.aspx?DID=1250</a> The 2012 report will be available on line by July 2013 at <a href="http://gloucester-ma.gov/">http://gloucester-ma.gov/</a> under Departments, Public Works, and Water Compliance Office. The 2013 report will be available by July 2014.